

fiber compns. therefrom)

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TI Fireproofing and sound-absorbing coating composition containing light aggregate, **cement** and accelerator, and construction method thereof  
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PI	CN 1137051	A	19961204	CN 1996-100272	19960520
	CN 1076035	B	20011212		
	KR 144583	B1	19980715	KR 1996-13392	19960429
PRAI	KR 1995-12658	A	19950520		
	KR 1995-23655	A	19950801		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
CN 1137051	ICM	C09D001-06
	ICS	C09D005-18; C09D005-32
	IPCI	C09D0001-06 [ICM,6]; C09D0005-18 [ICS,6]; C09D0005-32 [ICS,6]
KR 144583	IPCI	C04B0041-45 [ICM,7]

AB The coating composition consists of light aggregate 35-60, **cement** binder 25-60, and accelerating agent 4-20%. The accelerating agent is selected from silicates (sodium silicate, lithium silicate, calcium silicate, and ammonium silicate), phosphates (phosphoric acid, phosphate, pyrophosphate, trimethylphosphate, poly(Me phosphate)), aluminates (potassium aluminate, calcium aluminate, sodium aluminate, calcium thioaluminate and calcinated aluminite). The lightwt. aggregate is selected from natural inorg. mineral substance such as swelling or no swelling pearl, light stone, volcanic ash or float stone, hollow sphere glass and mineral substance with micropore, fiber such as rockwool, glass fiber, and inorg. fiber. The binder is selected from portland **cement**, blast furnace **cement**, alumina **cement** and magnesia **cement**. The sound-absorbing fiber is selected from paper, cotton yarn, **polyethylene fiber**, **polystyrene fiber**, and polypropylene fiber. The heat-absorbing material may be included and is selected from Ca(OH)<sub>2</sub> and Al(OH)<sub>3</sub>. The surfactant may be included and is selected from **methylcellulose**, **poly(vinyl alc.)**, **poly(vinyl acetate)**, and **poly(ethylene oxide)**. The construction method comprises: (1) adding water in the composition (except accelerating agent) to prepare slurry, (2) **spray-mixing** the slurry with liquid accelerating agent at the **spray nozzle**, (3) **spraying** the mixed slurry on adhesive surface immediately. Thus, a coating composition comprising rockwool 55, portland **cement** 45, sodium silicate 11 kg and water **spray-mixed** and coated on H-shaped steel surface showed thickness 57.2 mm and d. 379 kg/m<sup>3</sup>.

ST coating compn fireproof sound absorbing; aggregate micropore mineral hollow sphere fiber; accelerator silicate phosphate aluminate fireproof

- Cement (non-Newtman)                      - aggregate  
- Ca aluminate (non-Newtman)                      "Sprayable"  
- polyethylene fibers / polystyrene fibers  
- polyvinyl alcohol / cellulose - viscosity modifiers